

FIG. 1

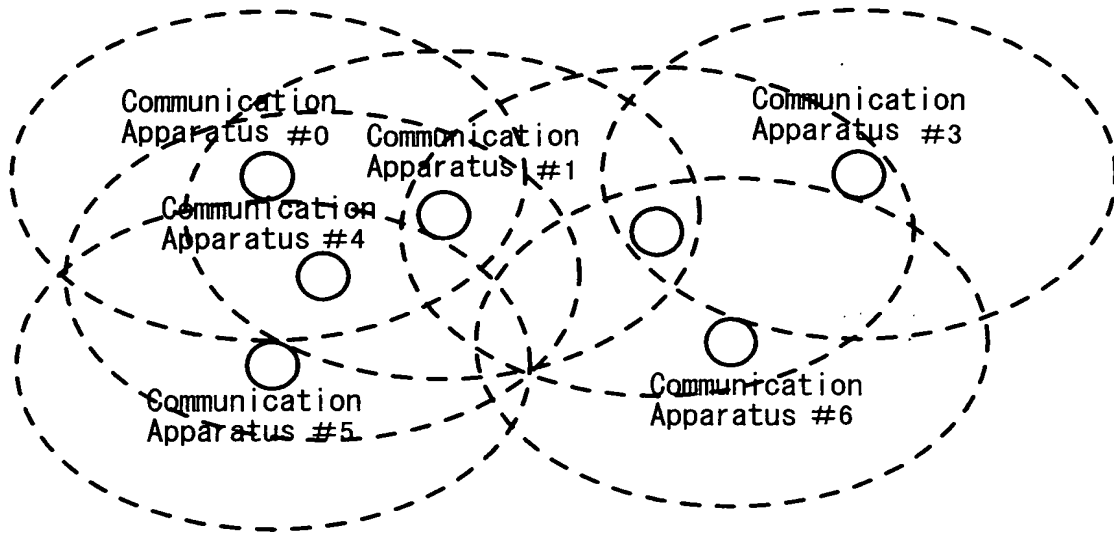


FIG. 2

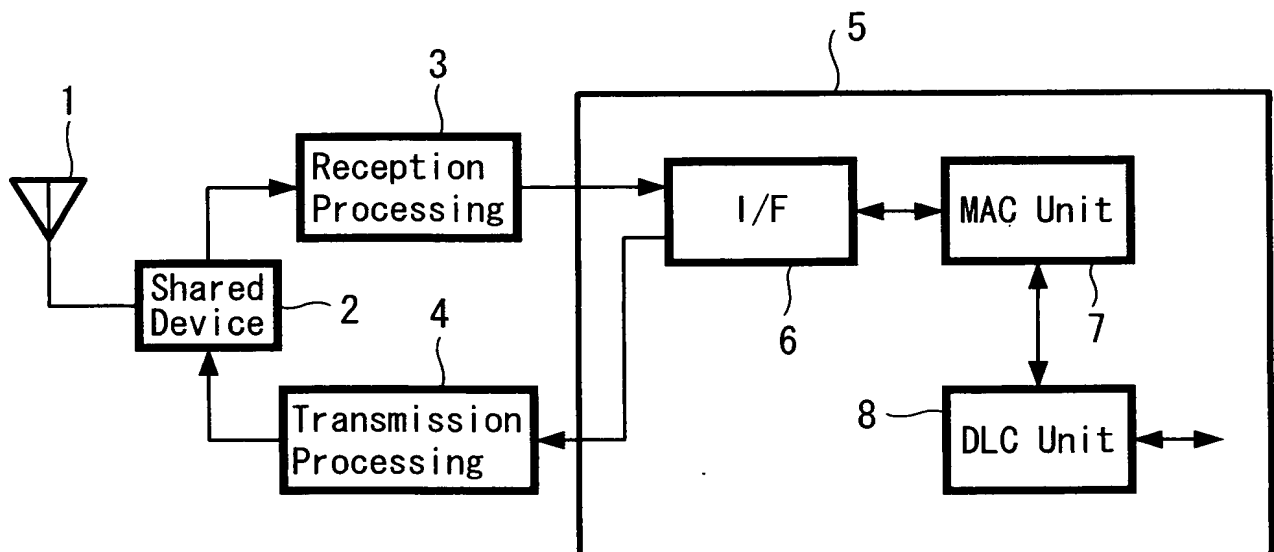


FIG. 3

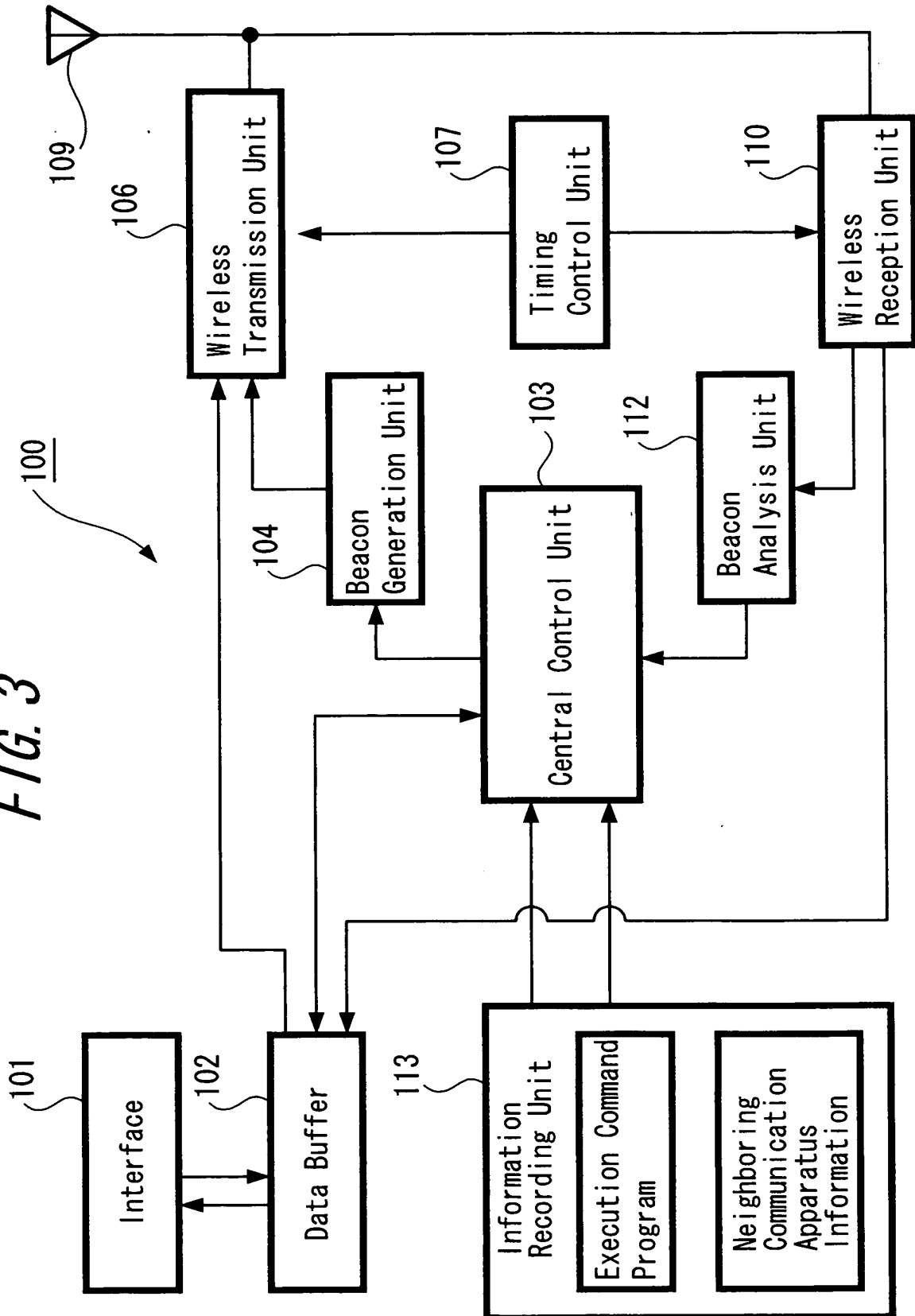
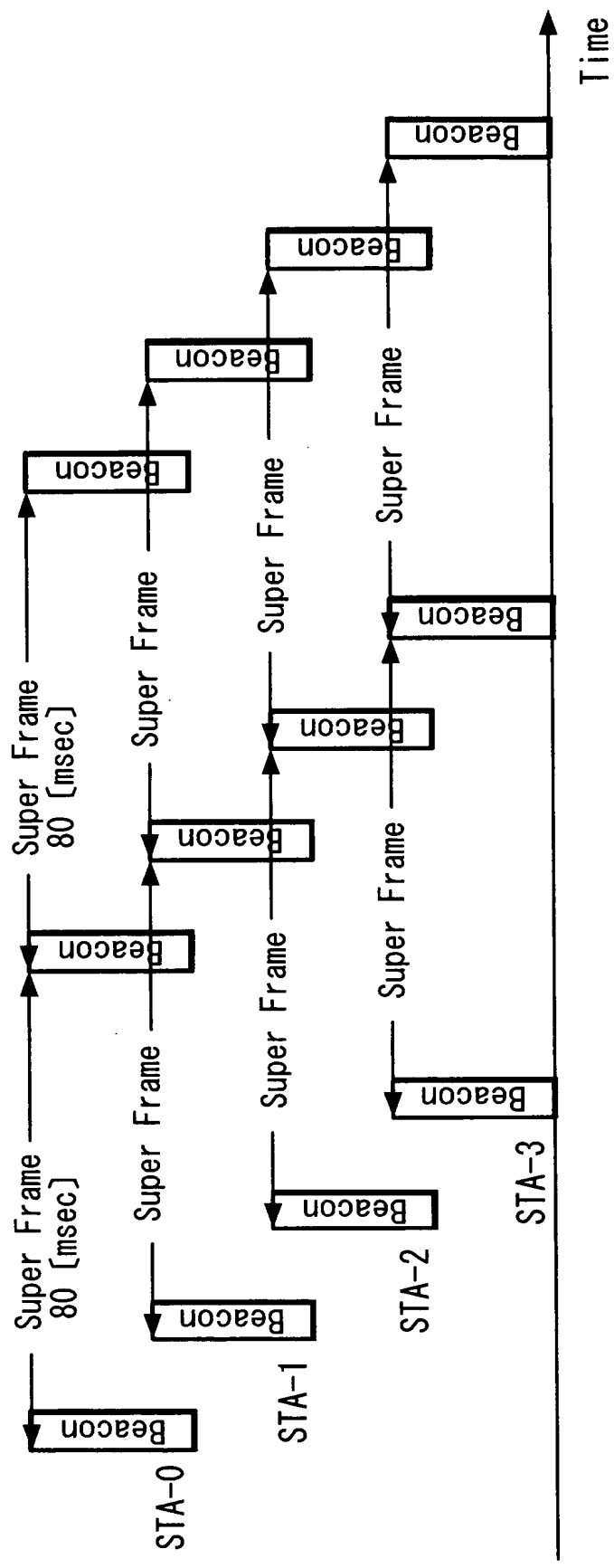
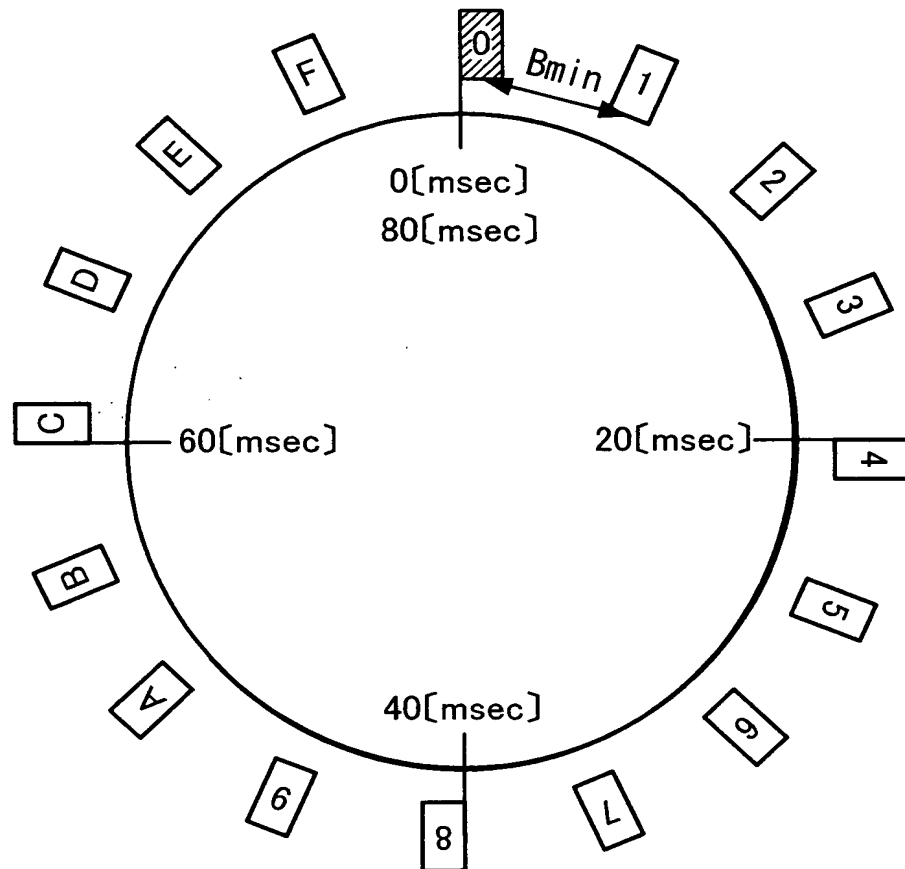


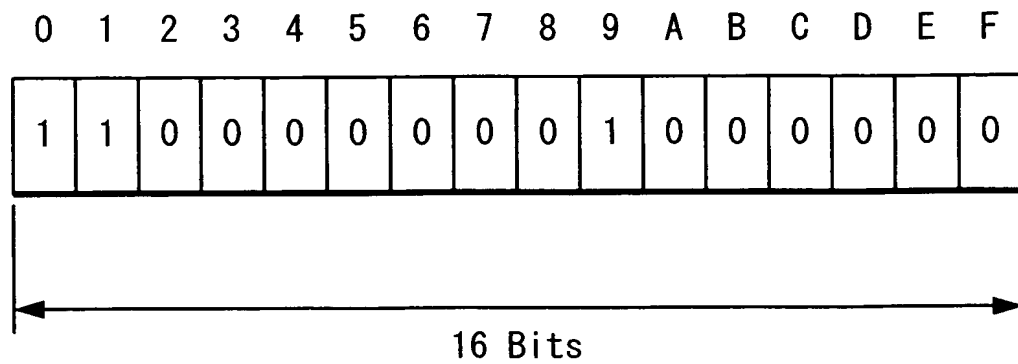
FIG. 4



*FIG. 5*



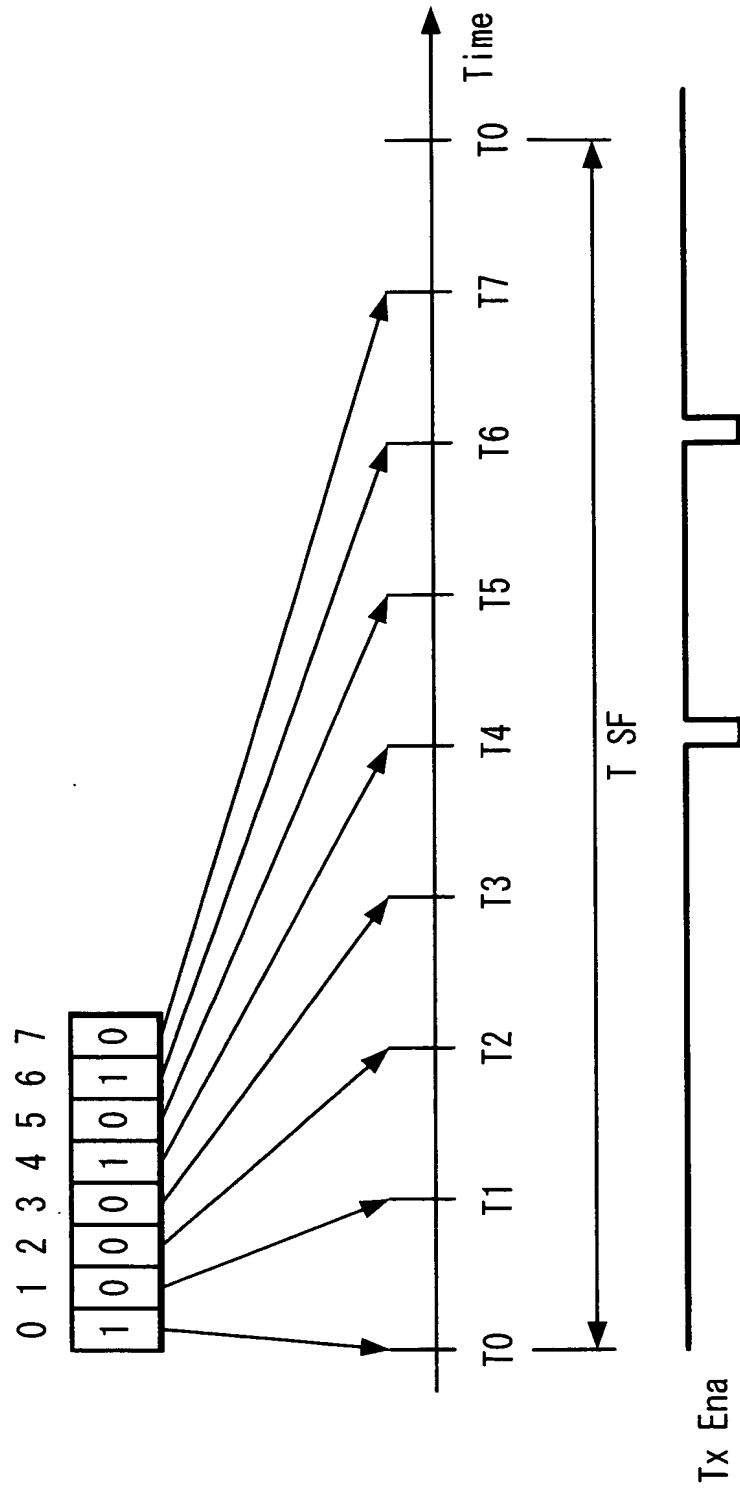
*FIG. 6*



The diagram illustrates the timing of NB-IoT Beacons. It shows a sequence of Super Frames, each containing three NB-IoT Beacons (Beacon-0, Beacon-1, Beacon-2). The Beacons are transmitted in a specific order, and the resulting NB-IoT Beacons for TX are shown as a sequence of bits (1s and 0s). The diagram also shows the OR of NB-IoT Beacons for TX, which is a sequence of bits (1s and 0s) representing the combined output of the Beacons.

The diagram shows the timing of NB-IoT Beacons relative to the Super Frame. The Super Frame is divided into three parts, each containing one NB-IoT Beacon. The Beacons are transmitted in a specific order, and the resulting NB-IoT Beacons for TX are shown as a sequence of bits (1s and 0s). The diagram also shows the OR of NB-IoT Beacons for TX, which is a sequence of bits (1s and 0s) representing the combined output of the Beacons.

FIG. 8



**FIG. 9**

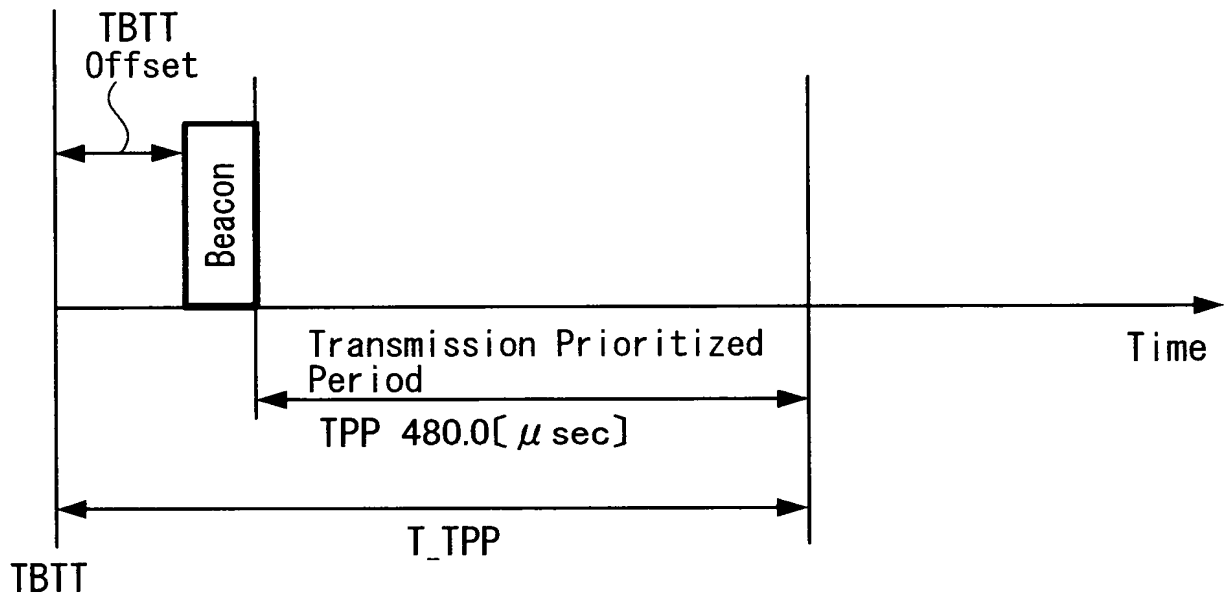


FIG. 10

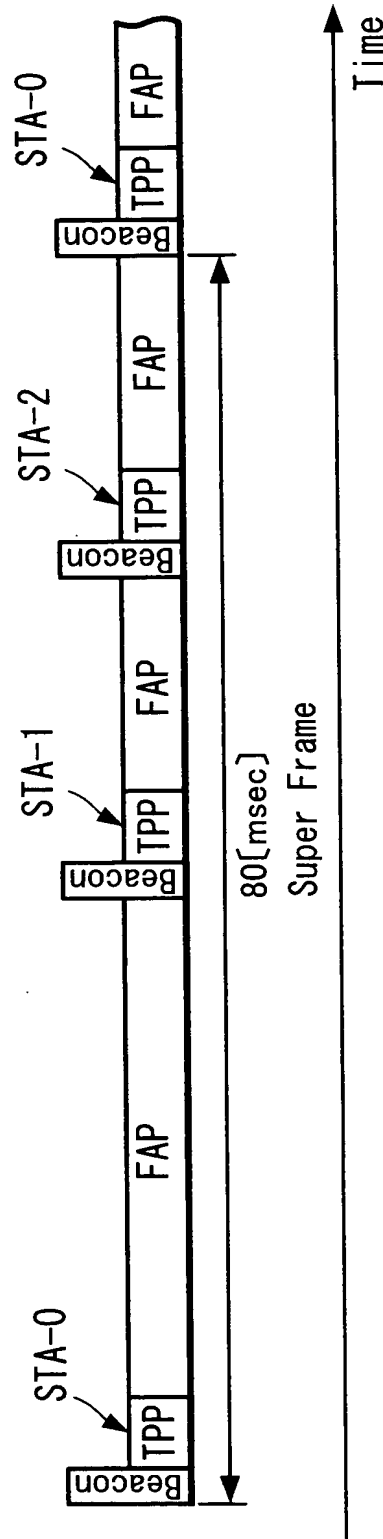




FIG. 11

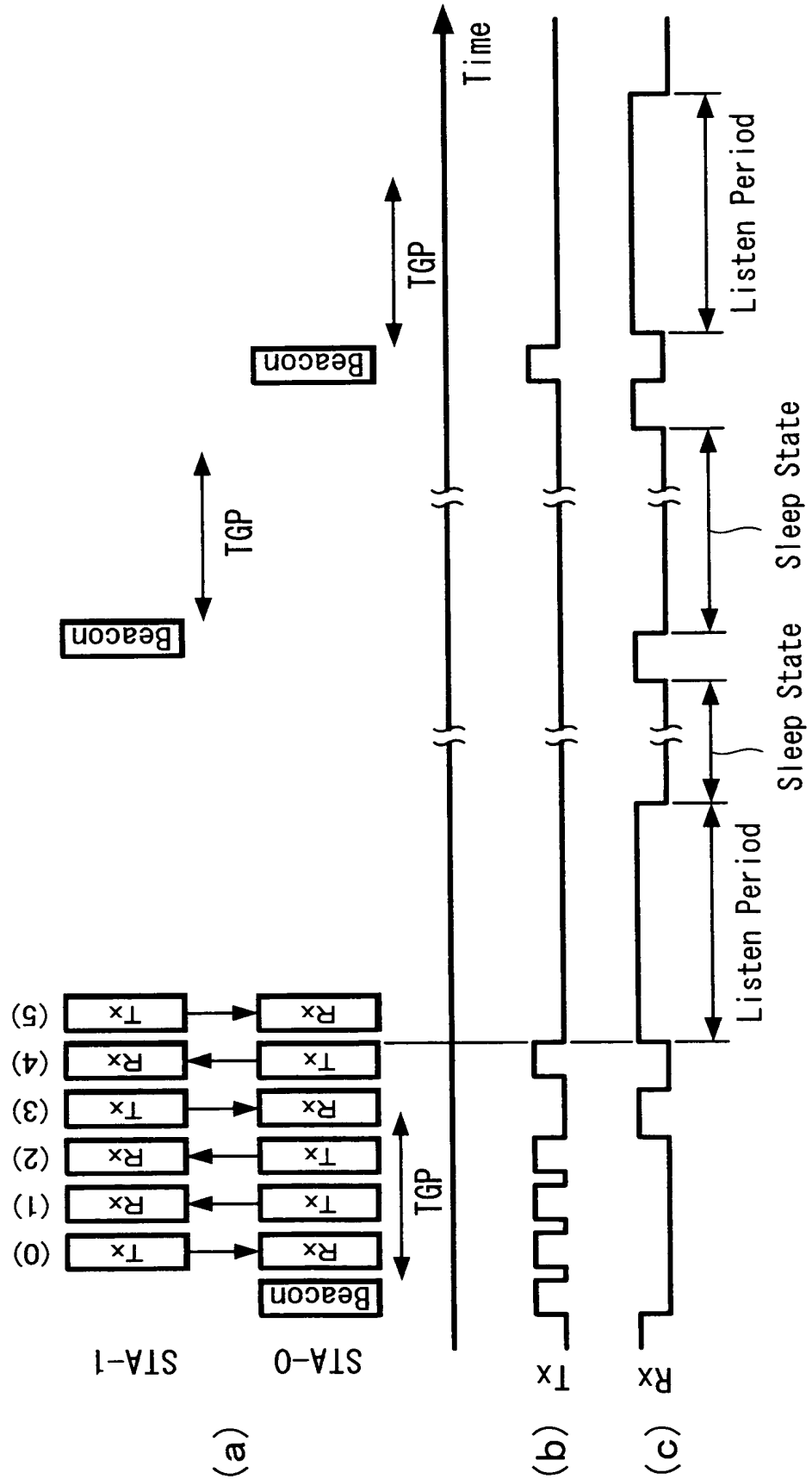


FIG. 12

List of STA-0

Neighbor ID	For Tx.	For Rx.
STA-1	ACT-0	ACT-0
STA-2	ACT-0	ACT-0
STA-3	ACT-0	ACT-0

(A)

(B)

(C)

: (0) : (1) : (2)

List of STA-1

Neighbor ID	For Tx.	For Rx.
STA-0	ACT-0	ACT-0
STA-2	ACT-0	ACT-0
STA-3	ACT-0	ACT-0

(A)

(B)

(C)

: (0) : (1) : (2)

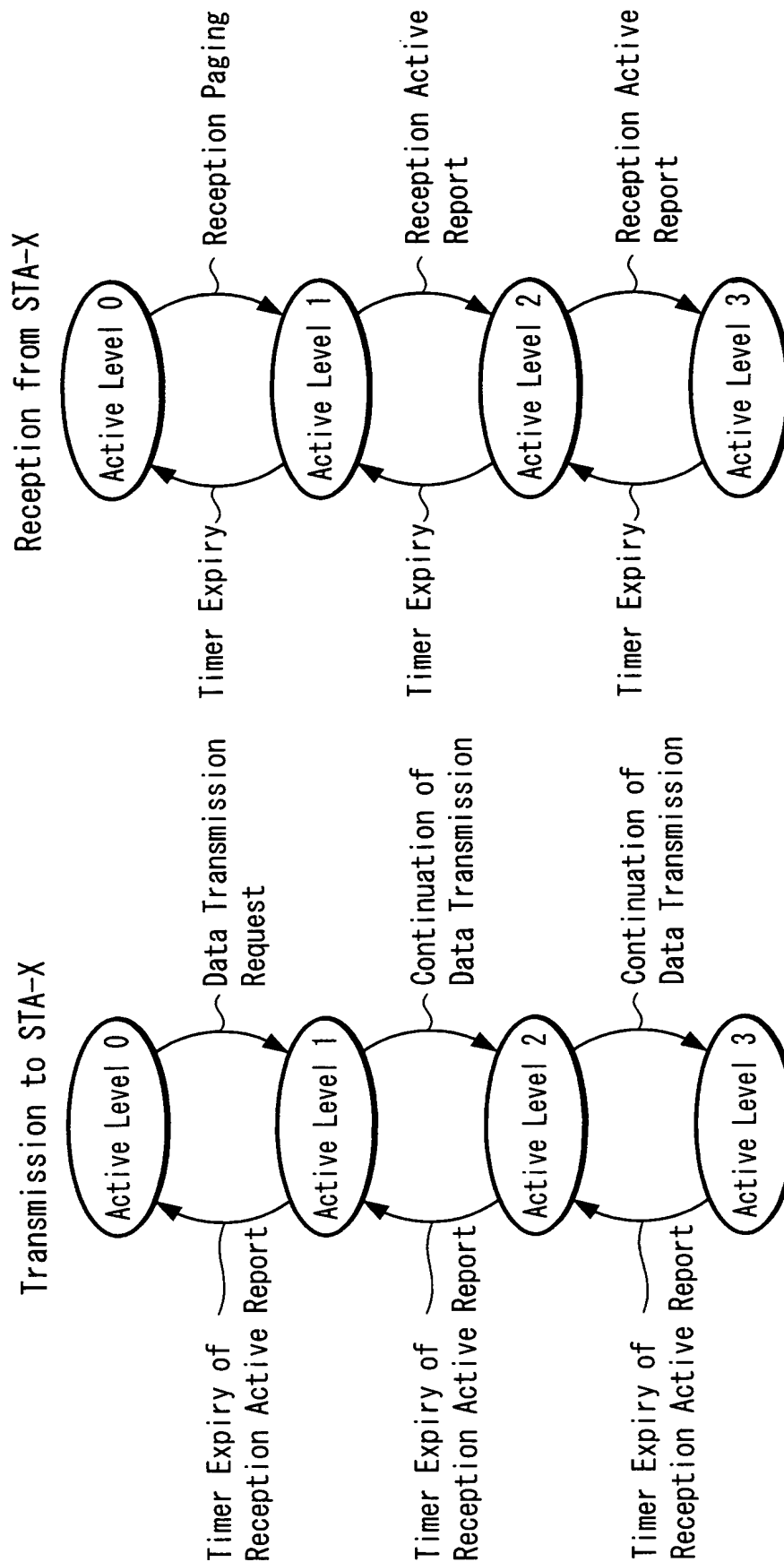


FIG. 13B

FIG. 13A

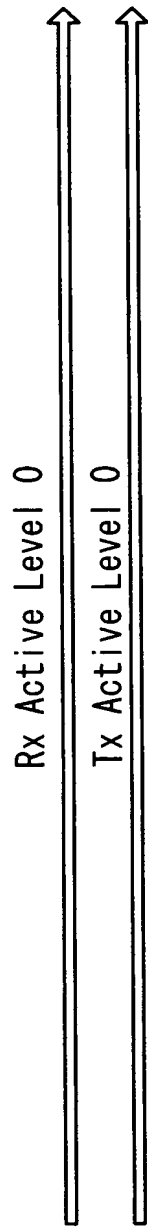
STA-0  
Rx  
State

FIG. 14A

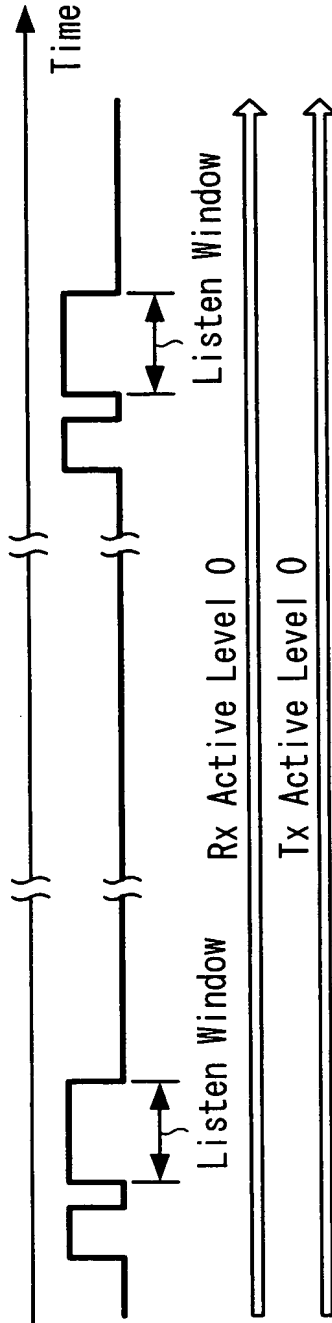
(B1-1)  
Beacon  
Listen Window(B1-2)  
BeaconSTA-1  
Rx  
State

FIG. 14D

STA-0

STA-1

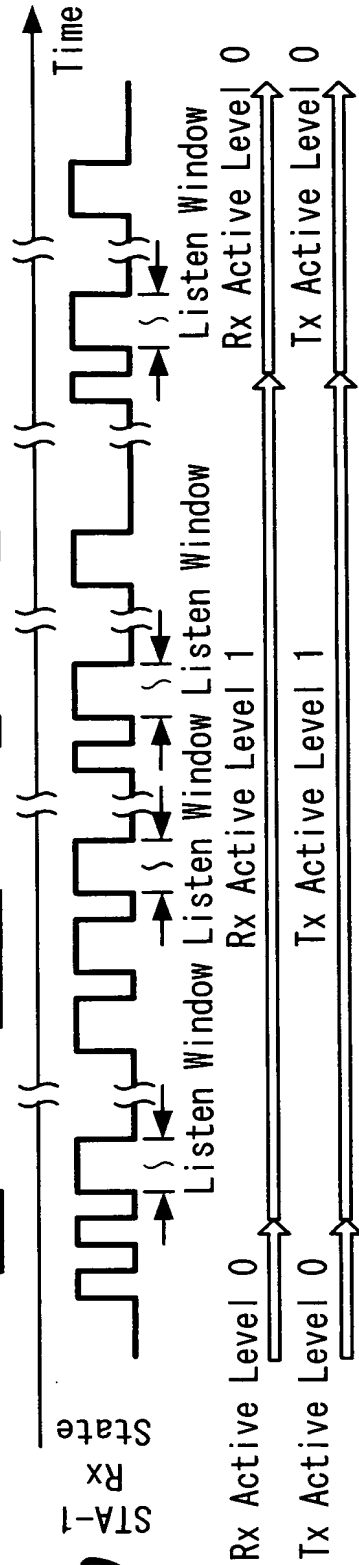
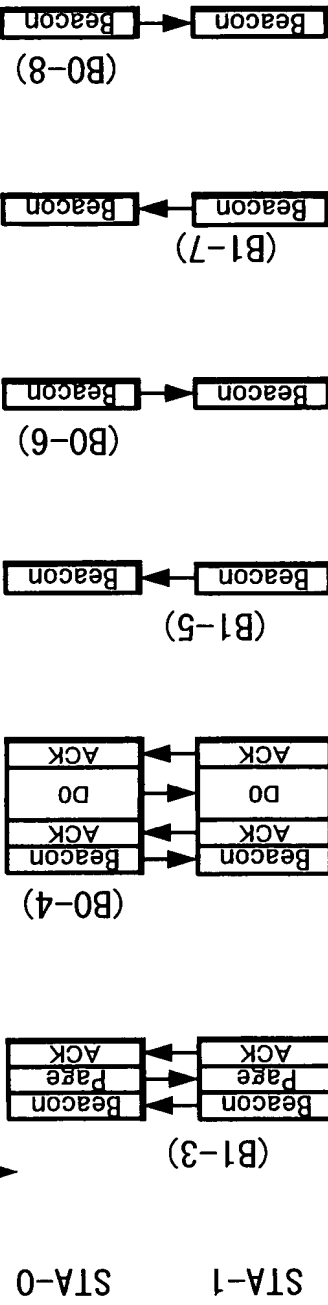
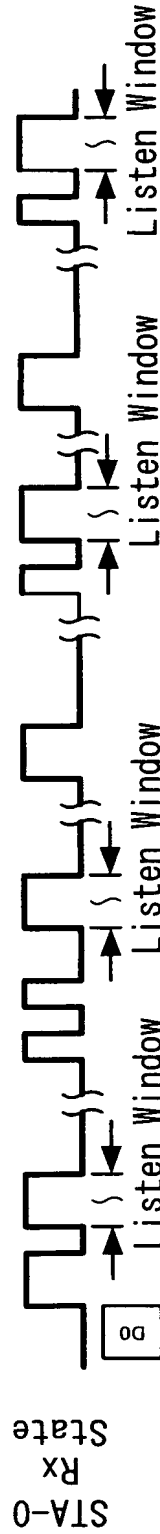
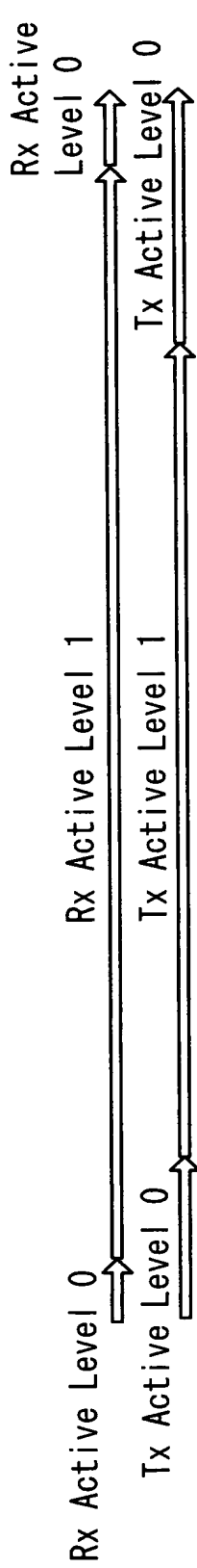
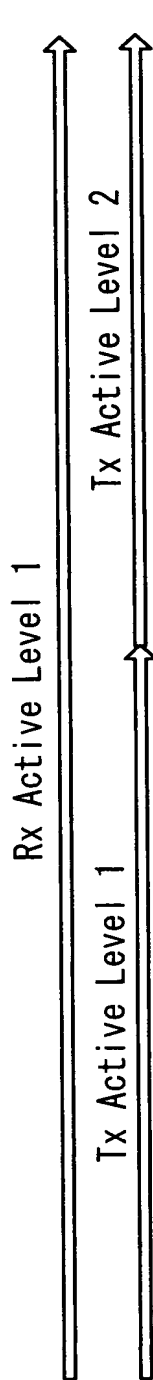


FIG. 15A

FIG. 15B

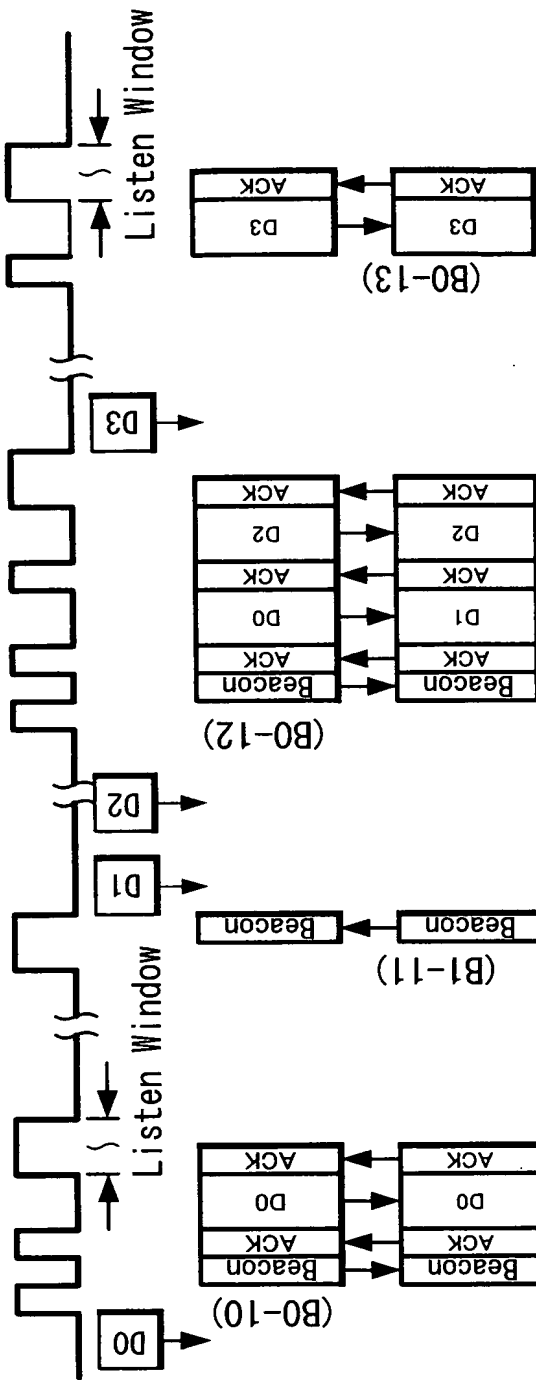
FIG. 15C

FIG. 15D



STA-0  
Rx  
State

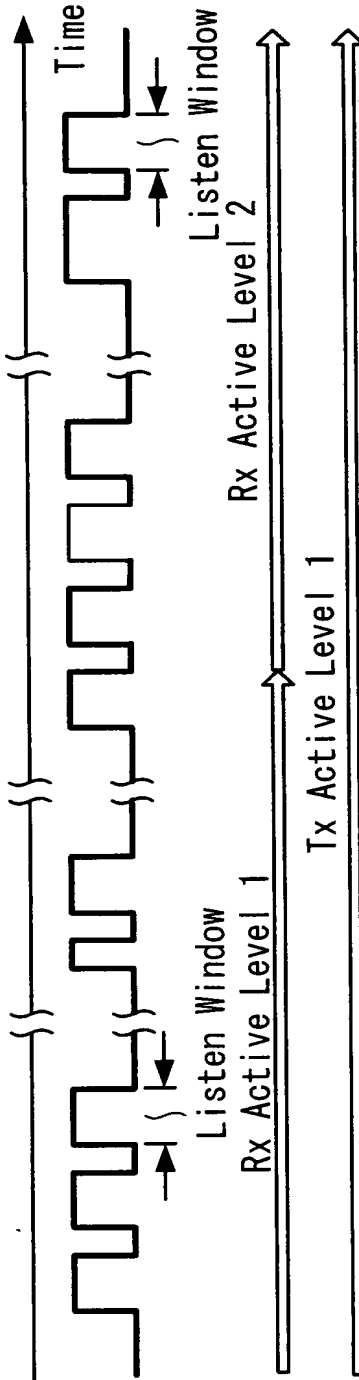
FIG. 16A



STA-0

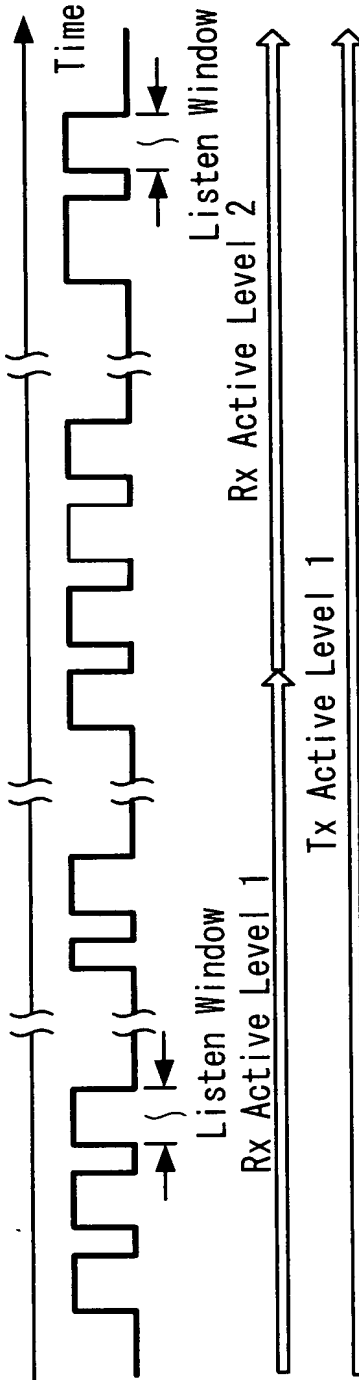
STA-1

FIG. 16B



STA-1  
Rx  
State

FIG. 16C



1,015,441,07

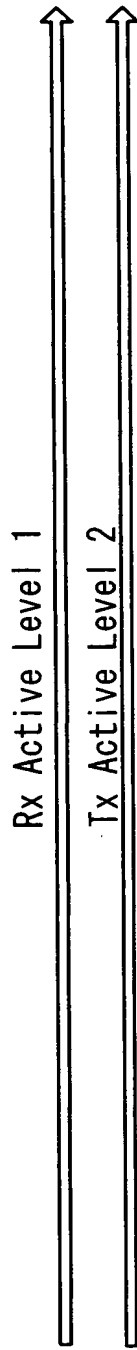


FIG. 17A  
STA-0 Rx State

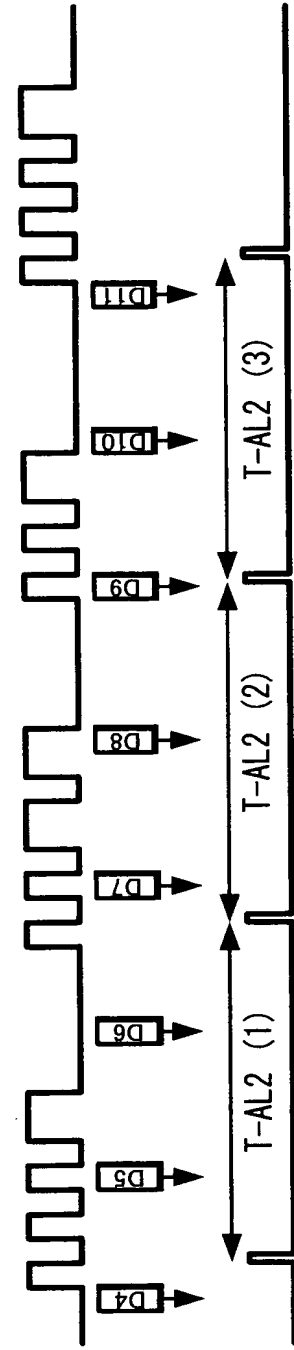


FIG. 17B  
STA-0 Tx Trigger

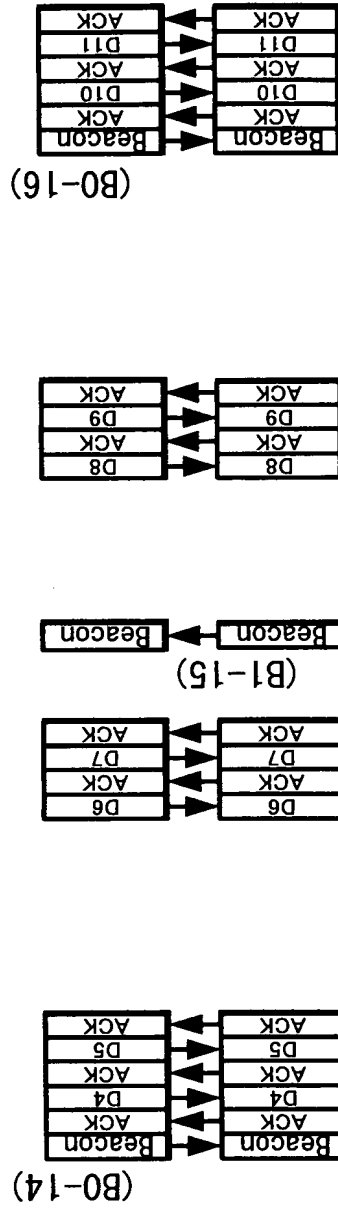


FIG. 17C  
STA-0

FIG. 17D  
STA-1

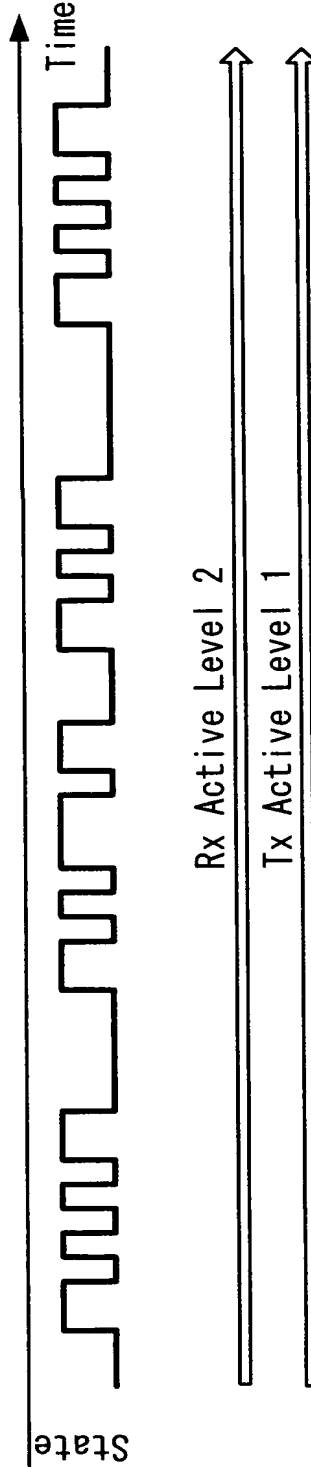
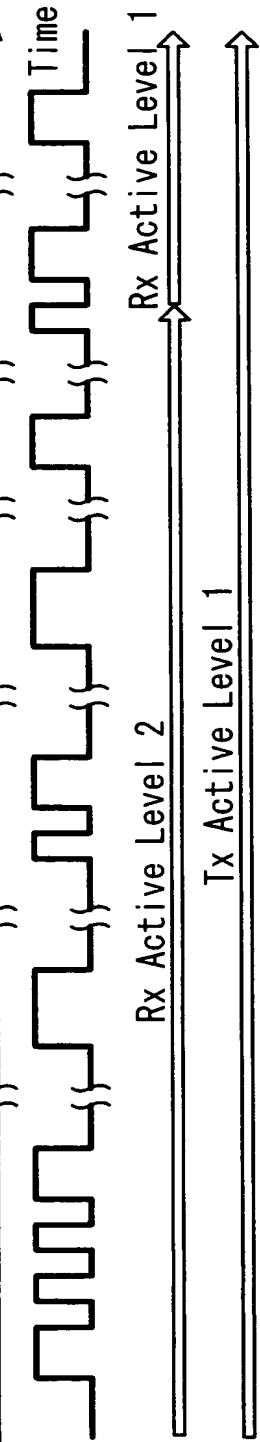
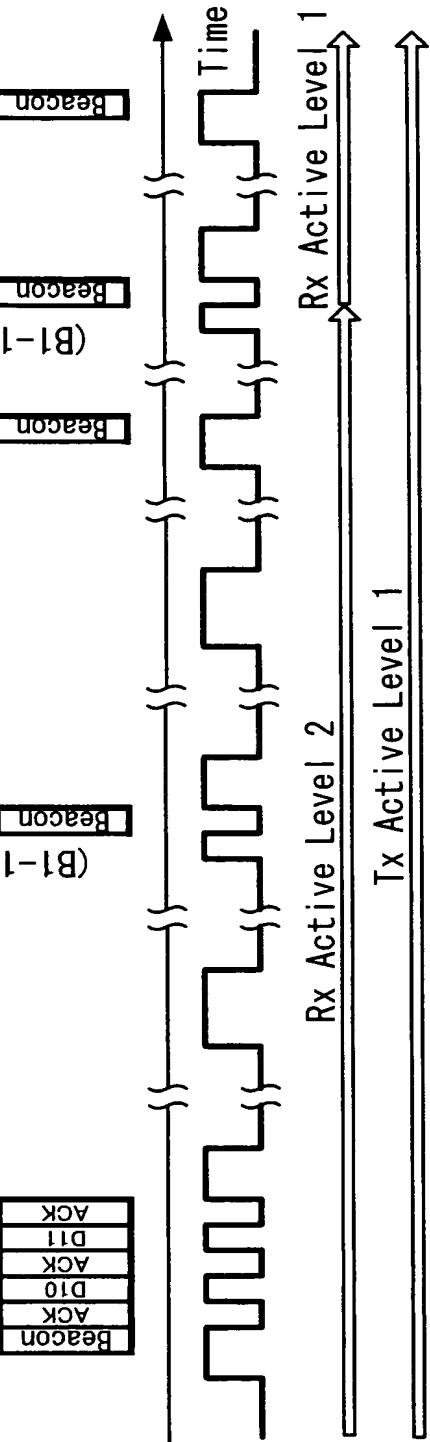
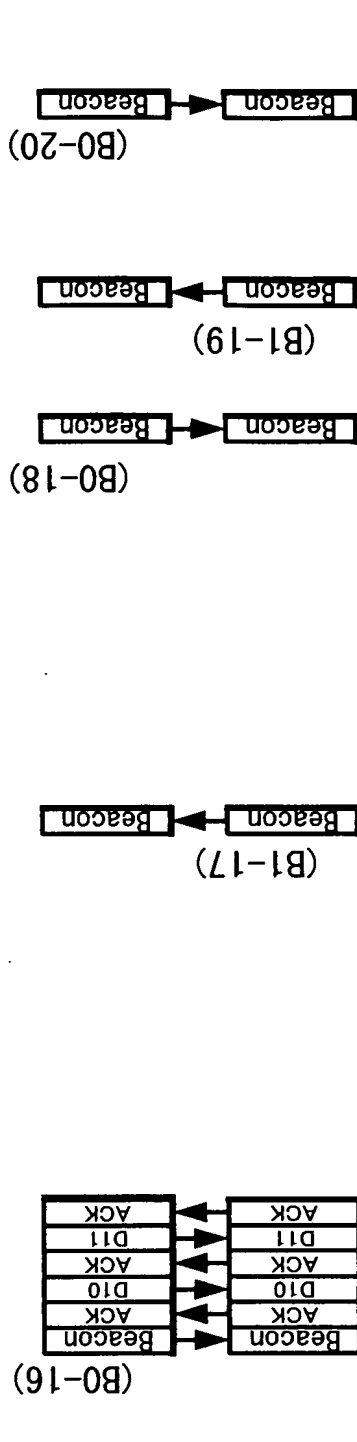
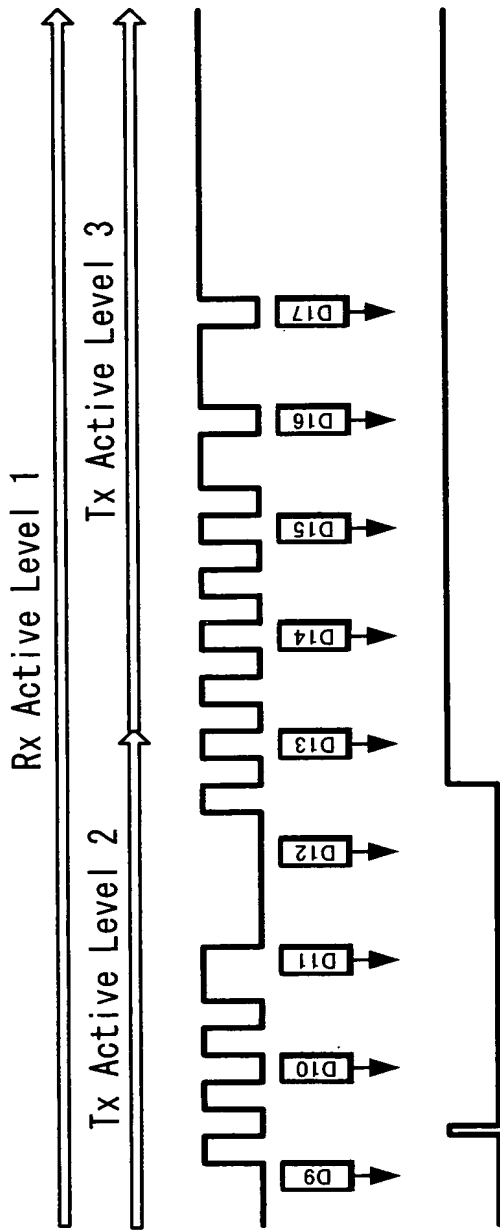


FIG. 17E  
STA-1 Rx State



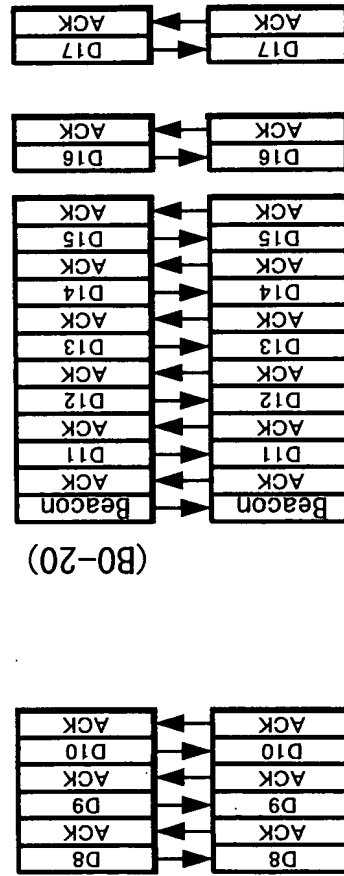




STA-0 Rx State  
 STA-0 Tx Trigger

FIG. 19A

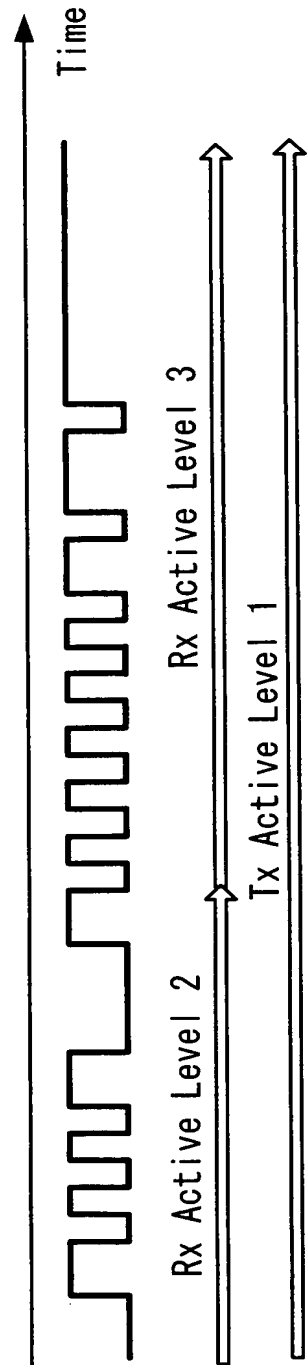
FIG. 19B



STA-0  
 STA-1

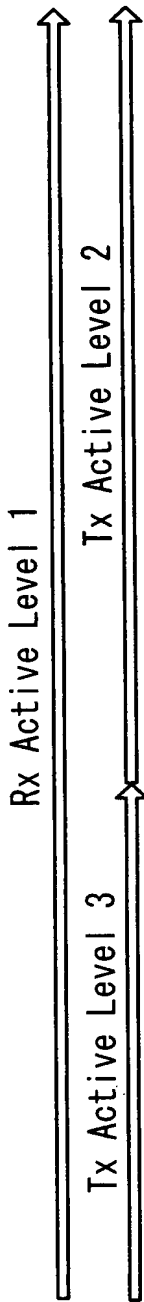
FIG. 19C

FIG. 19D



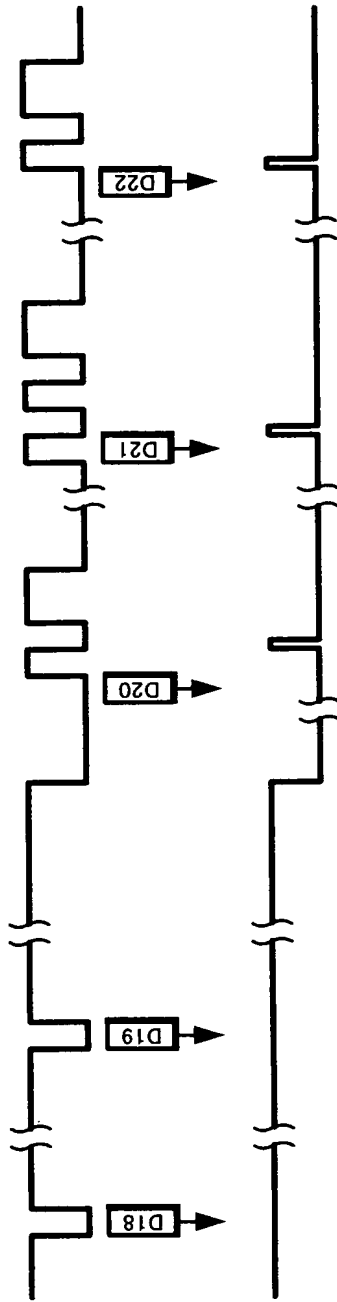
STA-1 Rx State

FIG. 19E



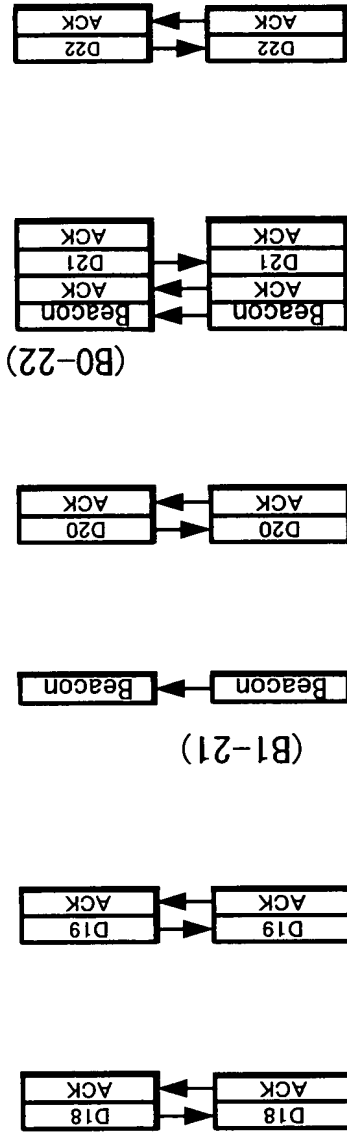
STA-0  
Rx  
State

FIG. 20A



STA-0  
Tx  
Trigger

FIG. 20B

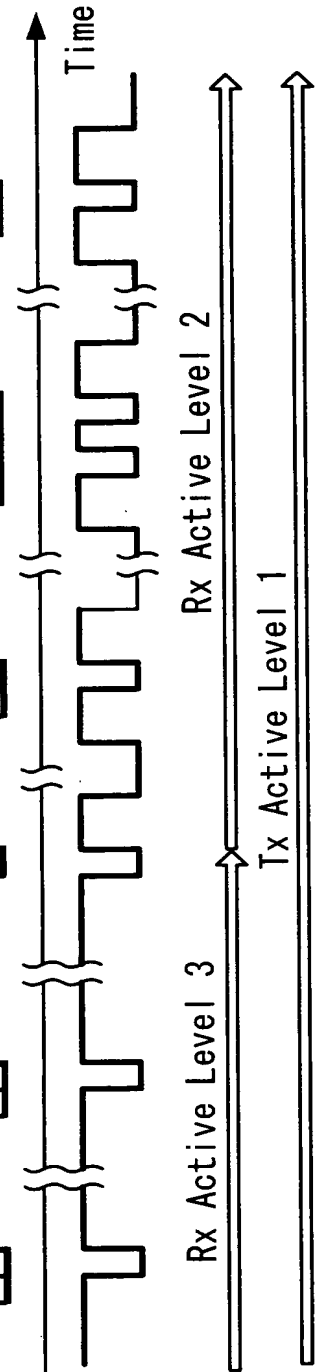


STA-0

FIG. 20C

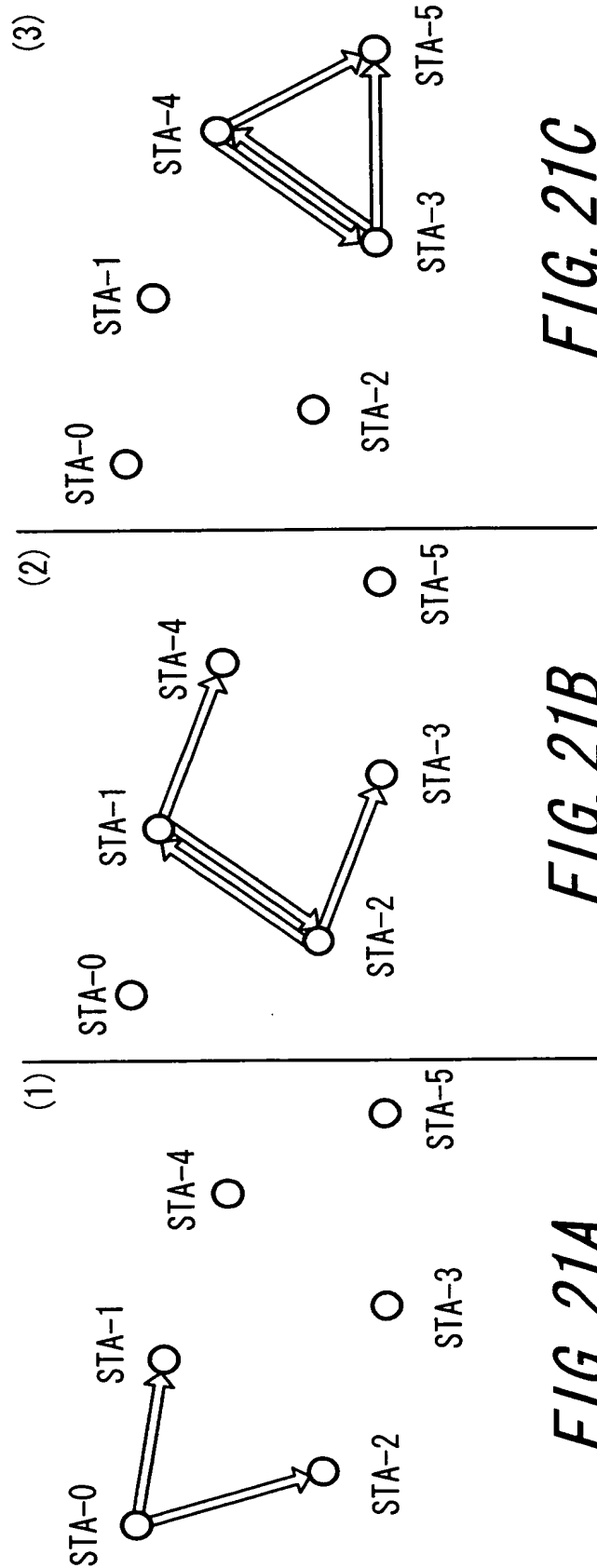
STA-1

FIG. 20D



STA-1  
Rx  
State

FIG. 20E



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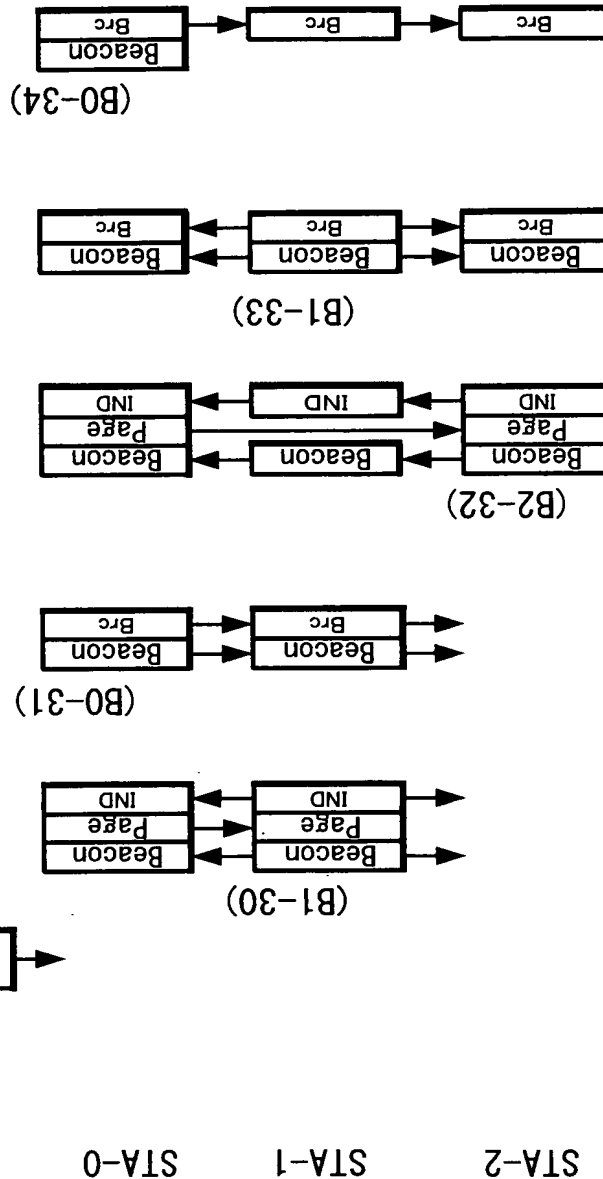
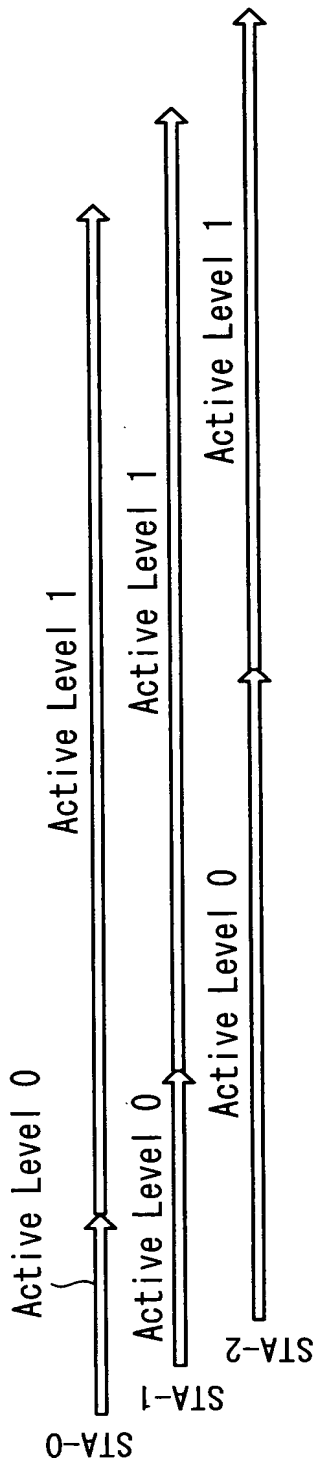


FIG. 22A

FIG. 22B

FIG. 22C

FIG. 23

List of STA-0

Status:ACT-0

Neighbor ID	For Tx.	For Rx.
STA-1	ACT-0	ACT-0
STA-2	ACT-0	ACT-0

@T0

Status:ACT-1all

Neighbor ID	For Tx.	For Rx.
STA-1	ACT-0	ACT-1
STA-2	ACT-0	ACT-1

@T1

Status:ACT-1all

Neighbor ID	For Tx.	For Rx.
STA-1	ACT-1	ACT-1
STA-2	ACT-0	ACT-1

@T3

Status:ACT-1all

Neighbor ID	For Tx.	For Rx.
STA-1	ACT-1	ACT-1
STA-2	ACT-1	ACT-1

@T6

Status:ACT-1all

Neighbor ID	For Tx.	For Rx.
STA-1	ACT-1	ACT-1
STA-2	ACT-1	ACT-1

@T7

List of STA-1

Status:ACT-0

Neighbor ID	For Tx.	For Rx.
STA-0	ACT-0	ACT-0
STA-2	ACT-0	ACT-0

Status:ACT-0

Neighbor ID	For Tx.	For Rx.
STA-0	ACT-0	ACT-0
STA-2	ACT-0	ACT-0

Status:ACT-1all

Neighbor ID	For Tx.	For Rx.
STA-0	ACT-1	ACT-1
STA-2	ACT-0	ACT-1

Status:ACT-1all

Neighbor ID	For Tx.	For Rx.
STA-0	ACT-1	ACT-1
STA-2	ACT-1	ACT-1

Status:ACT-1all

Neighbor ID	For Tx.	For Rx.
STA-0	ACT-1	ACT-1
STA-2	ACT-1	ACT-1

List of STA-2

Status:ACT-0

Neighbor ID	For Tx.	For Rx.
STA-0	ACT-0	ACT-0
STA-1	ACT-0	ACT-0

Status:ACT-0

Neighbor ID	For Tx.	For Rx.
STA-0	ACT-0	ACT-0
STA-1	ACT-0	ACT-0

Status:ACT-0

Neighbor ID	For Tx.	For Rx.
STA-0	ACT-0	ACT-0
STA-1	ACT-0	ACT-0

Status:ACT-1all

Neighbor ID	For Tx.	For Rx.
STA-0	ACT-1	ACT-1
STA-1	ACT-0	ACT-1

Status:ACT-1all

Neighbor ID	For Tx.	For Rx.
STA-0	ACT-1	ACT-1
STA-1	ACT-1	ACT-1

FIG. 24

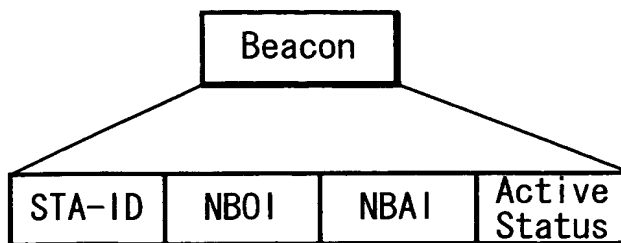


FIG. 25

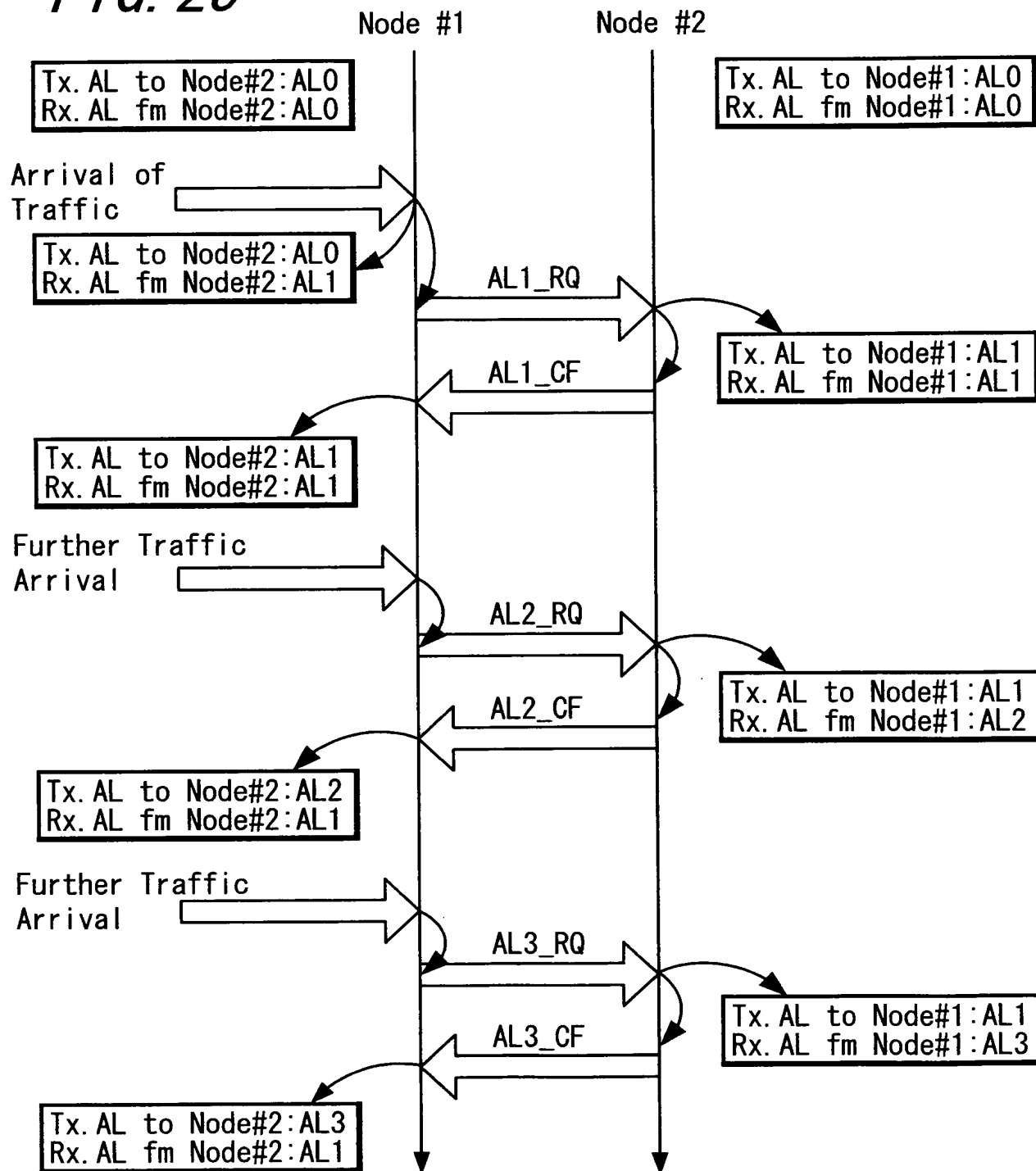
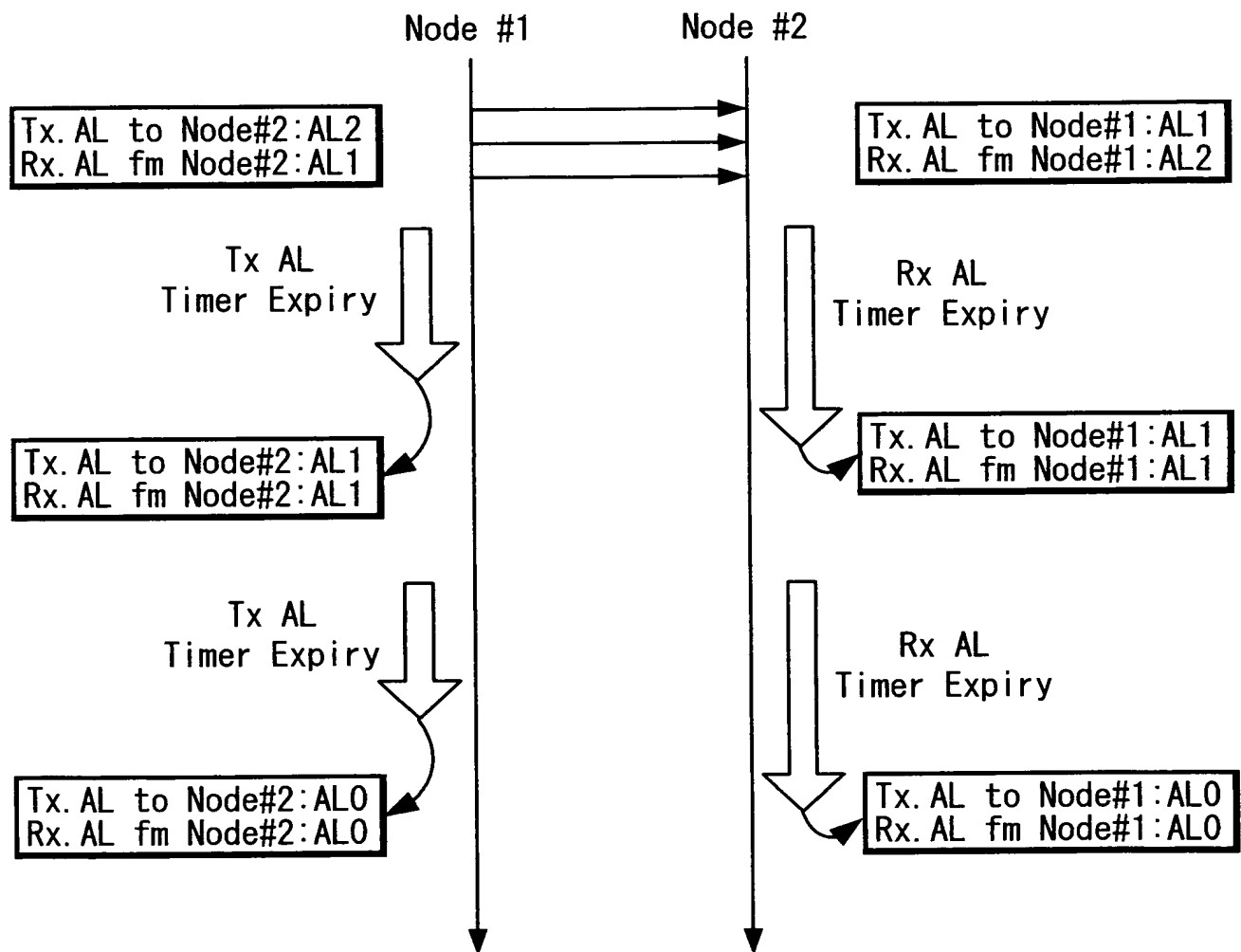
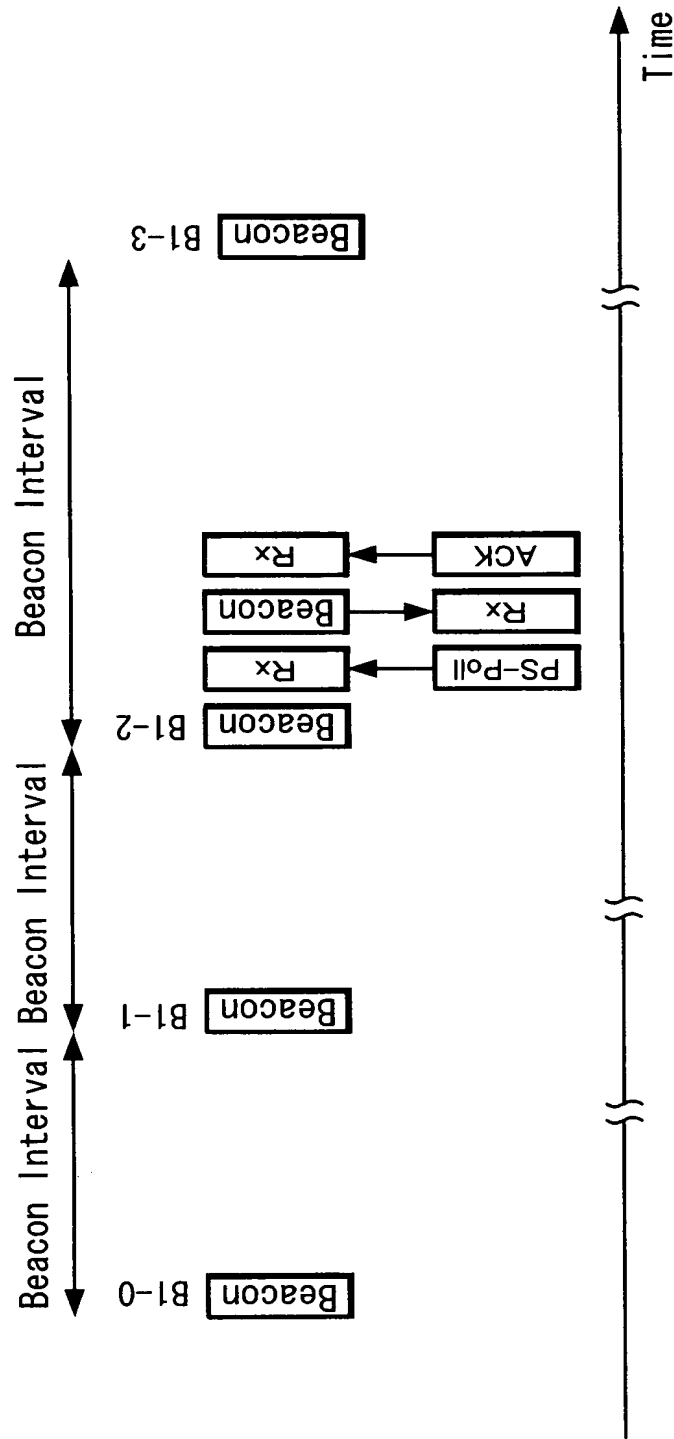


FIG. 26



2016 2 24 13 37



STA-1

FIG. 27A

STA-0

FIG. 27B

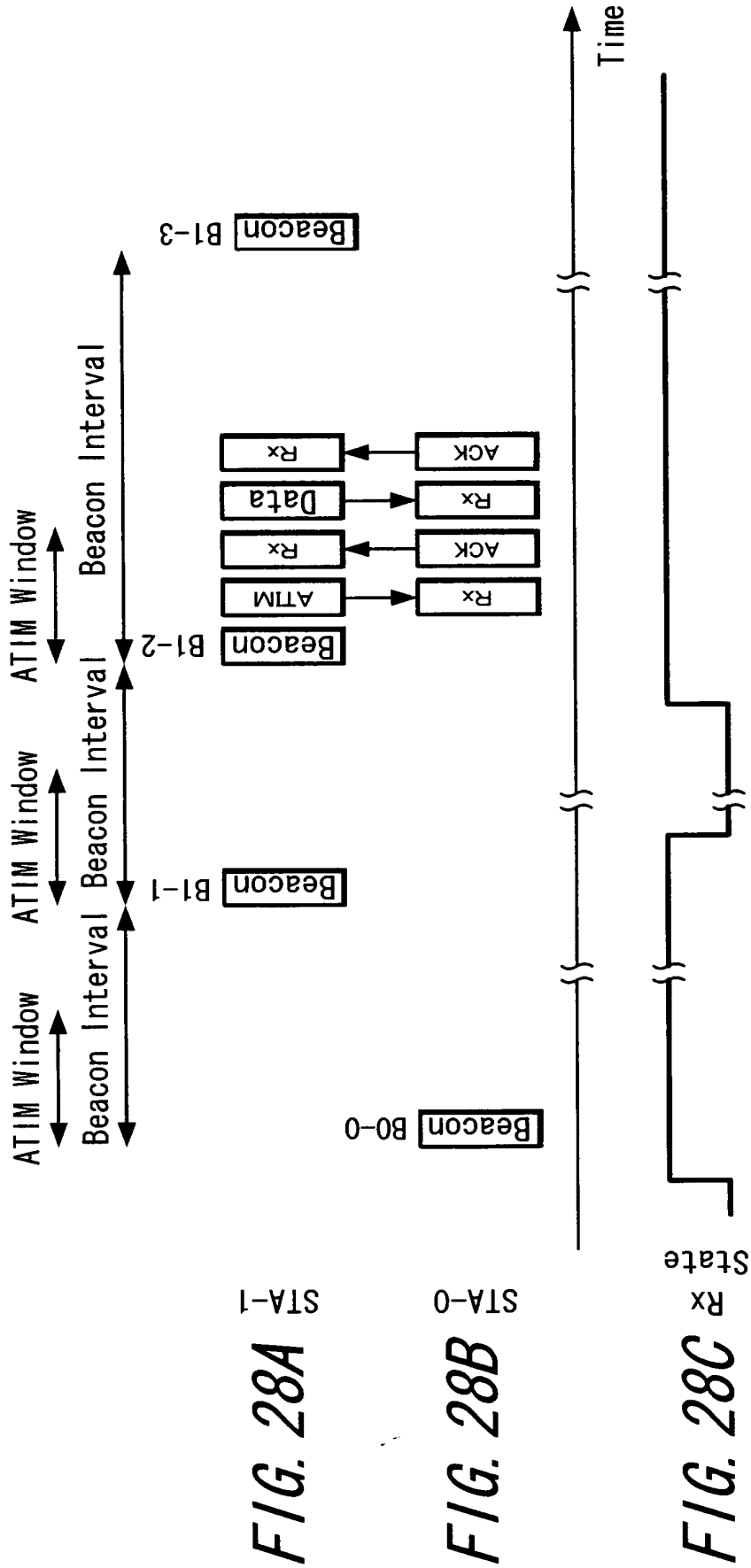
State

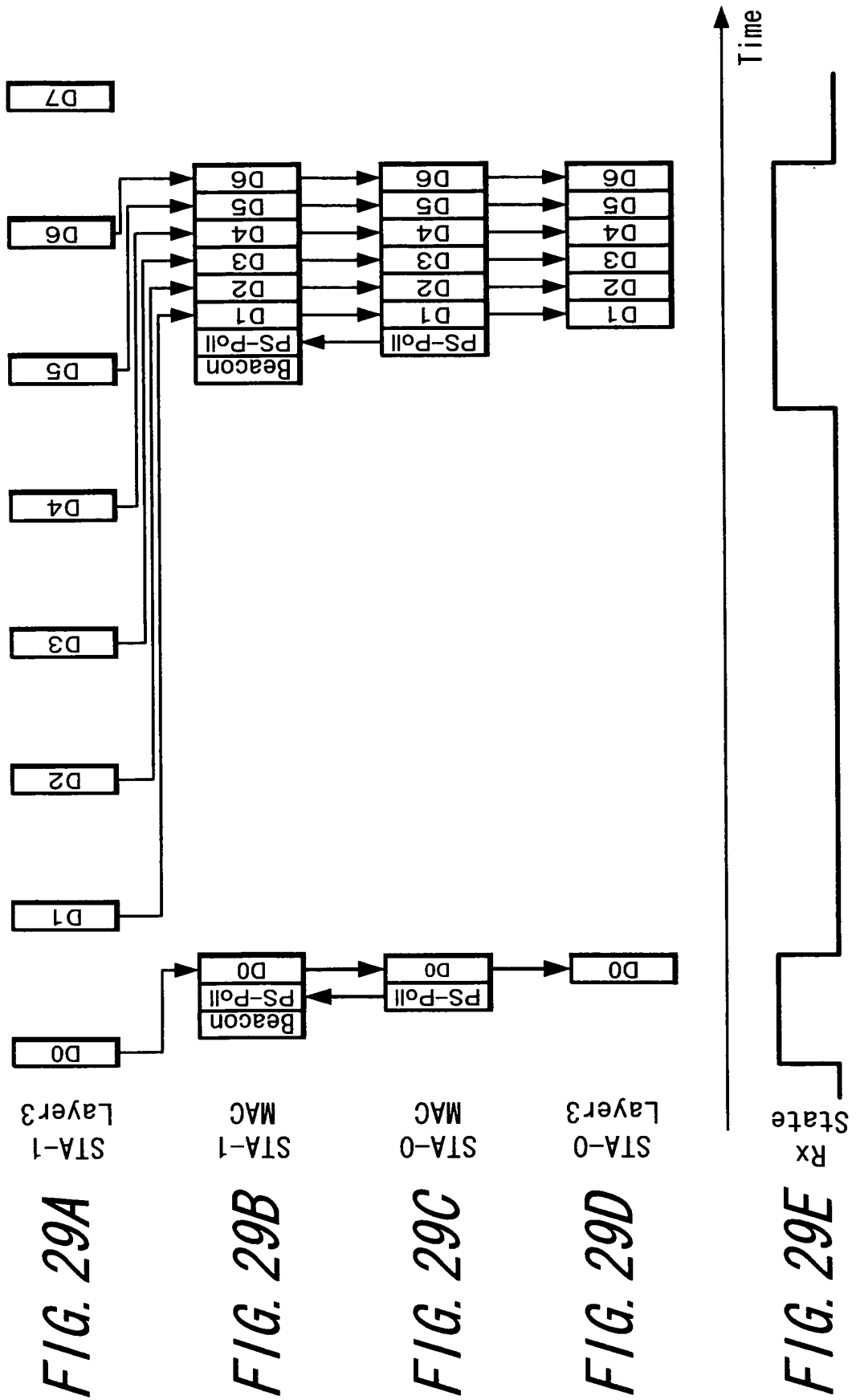
Rx

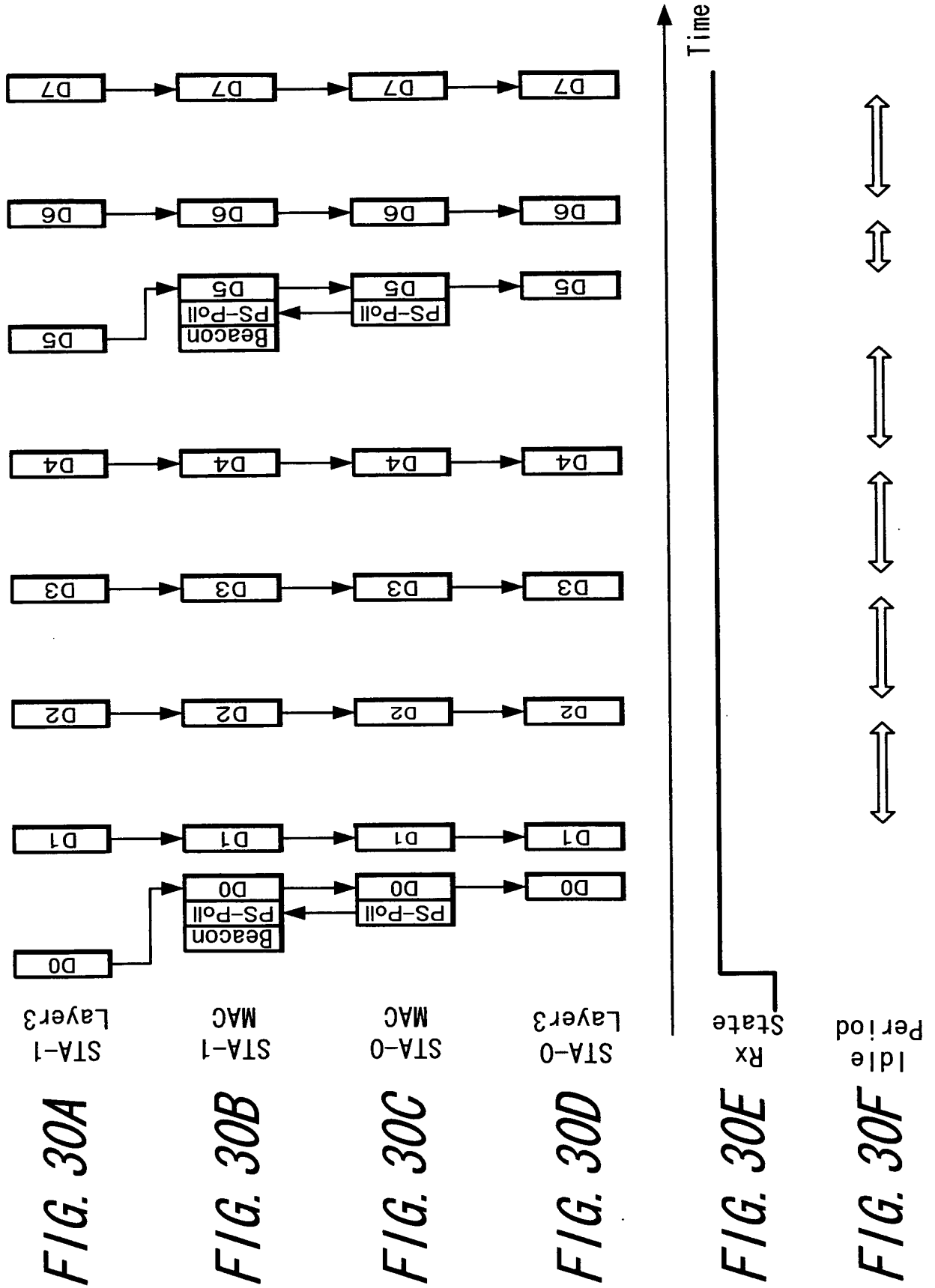
FIG. 27C



10/544107







## DESCRIPTION OF REFERENCE NUMERALS

- 1 --- ANTENNA
- 2 --- ANTENNA SHARED DEVICE
- 3 --- RECEPTION PROCESSING UNIT
- 4 --- TRANSMISSION PROCESSING UNIT
- 5 --- BASE-BAND UNIT
- 6 --- INTERFACE UNIT
- 7 --- MAC (MEDIUM ACCESS CONTROL) UNIT
- 8 --- DLC (DATA LINK CONTROL) UNIT
- 100 --- WIRELESS COMMUNICATION APPARATUS
- 101 --- INTERFACE
- 102 --- DATA BUFFER
- 103 --- CENTRAL CONTROL UNIT
- 104 --- BEACON GENERATION UNIT
- 106 --- WIRELESS TRANSMISSION UNIT
- 107 --- TIMING CONTROL UNIT
- 109 --- ANTENNA
- 110 --- WIRELESS RECEPTION UNIT
- 112 --- BEACON ANALYSIS UNIT
- 113 --- INFORMATION MEMORY UNIT